

SEQUENCE LISTING

<110> Afar, Daniel E.
Hubert, Rene S.
Leong, Kahan
Raitano, Arthur B.
Saffran, Douglas C.
Jakobovits, Aya

<120> BPC-1: A SECRETED BRAIN-SPECIFIC PROTEIN EXPRESSED AND
SECRETED BY PROSTATE AND BLADDER CANCER CELLS

<130> 1703-017.US1

<140> 09/374,135
<141> 1999-08-10

<150> 60/095,982
<151> 1998-08-10

<160> 20

<170> PatentIn Ver. 2.1

<210> 1
<211> 2639
<212> DNA
<213> Homo sapiens

<400> 1
cagccccggg ggcggccggc cgcgacgccc cgttatcccc cccaggctcc gggcttccag 60
gagggtcgcg gagccccaa ccatgactaa ggagccccatt tgatagcaga ggtggccgc 120
agcccgccga gccgatgacg gaccctttc tcctgccttc aatgcctcag cggaaagatcc 180
ccaagggtcg gacgagag cgtgccgct ggacatcctc ccggggaggc tgctccgacc 240
tgctggcgccg cgcgtcttag actggggact gagccactcc gcccggccg ggcggccgc 300
cgccgccccgc tccgtcgctg ccgtcggtct ggactggccc ccacacgcgt ggcggccgc 360
cccggccccg gccccggctc ggggcgtccc ggggctcgcc ctgcgaccgc cgcctccgc 420
gcgcgcgcgc ctcccgaccc cgcggcgccg acgatgccc ggaggagggt cctgacggcg 480
gcggcgccga tgggtggccgc cggccggccgg gtgtgatgcg agcgtcacgg tggggatgt 540
gctggctcgcg cggcgcttag ggcagcgcag agcgagagcc cgcggccggcc ggaggacgg 600
ctcatccgga tctggctca gcgtgggctc ggagctcccc ctgcgcgtcc gtctccctct 660
cggccccccct ttatttcctt ctgtctttgc gtcttaaca cctctcgacc ctgtccccc 720
cccgccactg gaagtcttcc cgtctctaaa tggaaattagt ggagcccgga gcctctgg 780
taacgcacag acatgatcca tggcgccagc gtgcttcaca ttgttagcaag ttaatcatc 840
ctccatttgt ctggggcaac caagaaagga acagaaaagc aaaccacctc agaaacacag 900
aagtcatgtc agtgtggAAC ttggacaaaa catgcagagg gaggtatctt tacctctccc 960
aactatcccc gcaagtatcc ccctgaccgg gaatgcacatc acatcataga agccgatcca 1020
agacagtgcg ttgaacttta ctttgatgaa aagtactcta ttgaaccgtc tggggagtgc 1080
aaatttgatc atattgaagt tcgagatggc cttttggct tttctccat aattggacgt 1140
ttctgtggac aacaaaatcc acctgtcata aaatccagtg gaagattct atggataaa 1200
tttttgctg atggagagct ggaatctatg ggattttcag ctcgatacaa ttccacacct 1260
ggtaagtaag tactaaaaaa aaaaatttct ttttcttccat cattttctat tcttcatagt 1320
acaaaatctt gtgtaaagaca acattatact ttctcagaga atgtccagt tctatttaaa 1380
accaaatacta cagtgcctt tctttccct acacaaattc tggaaaggaaa agatgtttc 1440
ctaaaaacag cctatactag aggtaaagag tagtgactca aggctctaaa tgggcacatcag 1500
ccacatcatc aagtggactt ttgttatgtt ggaatgtgtat attggagagaa cagtctgtga 1560
taaggaaact atacatagga gctgaataaa cttgaaaaga caattgttagt attataaaat 1620

<211> 115
<212> PRT
<213> Caenorhabditis elegans

<400> 3
Ile Phe Thr Ser Pro Asn Phe Pro Asp Arg Tyr Pro Pro Asn Ile Asp
1 5 10 15
Cys Val Arg Val Ile His Ser Arg Pro Gln His Asp Val Val Val Lys
20 25 30
Phe His His Val Phe His Ile Glu Ser Thr Tyr Asp Lys Ile Asp Ala
35 40 45
Gly Glu Glu Cys Pro Asn Asp Phe Ile Glu Phe Arg Asp Gly Arg Tyr
50 55 60
Gly Phe Ser Pro Leu Ile Ala Arg Phe Cys Gly Asp Arg Met Pro Lys
65 70 75 80
Arg Glu Ile Arg Ala Val Ser Gly Phe Leu Trp Ile Arg Phe Arg Ser
85 90 95
Asp Ser Met Leu Glu Tyr Gln Gly Phe Ser Ala Glu Tyr Ala Ile Val
100 105 110
Pro Ser Lys
115

<210> 4
<211> 101
<212> PRT
<213> Mouse

<400> 4
Gly Asn Phe Ser Ser Pro Glu Tyr Pro Asn Gly Tyr Ser Ala His Met
1 5 10 15
His Cys Val Trp Arg Ile Ser Val Thr Pro Gly Glu Lys Ile Ile Leu
20 25 30
Asn Phe Thr Ser Met Asp Leu Tyr Arg Ser Arg Leu Cys Trp Tyr Asp
35 40 45
Tyr Val Glu Val Arg Asp Gly Phe Trp Arg Lys Val Trp Val Arg Gly
50 55 60
Arg Phe Cys Gly Gly Lys Leu Pro Glu Pro Ile Val Ser Thr Asp Ser
65 70 75 80
Arg Leu Trp Val Glu Phe Arg Ser Ser Asn Trp Val Gly Lys Gly
85 90 95
Phe Phe Ala Val Tyr
100

<210> 5
<211> 103
<212> PRT
<213> Mouse

<400> 5
Asp Asn Gly His Ile Gln Ser Pro Asn Tyr Pro Asp Asp Tyr Arg Pro
1 5 10 15
Ser Lys Val Cys Ile Trp Arg Ile Gln Val Ser Glu Gly Phe His Val
20 25 30
Gly Leu Thr Phe Gln Ser Phe Glu Ile Glu Arg His Asp Ser Cys Ala
35 40 45
Tyr Asp Tyr Leu Glu Val Arg Asp Gly His Ser Glu Ser Ser Asn Leu
50 55 60
Ile Gly Arg Tyr Cys Gly Tyr Glu Asn Pro Asp Asp Ile Lys Ser Thr
65 70 75 80
Ser Ser Arg Leu Trp Leu Lys Phe Val Ser Asp Gly Ser Ile Asn Lys
85 90 95
Ala Gly Phe Ala Val Asn Phe
100

<210> 6
<211> 101
<212> PRT
<213> Mouse

<400> 6
Gly Ser Ile Thr Ser Pro Gly Trp Pro Lys Glu Tyr Pro Pro Asn Lys
1 5 10 15
Asn Cys Ile Trp Gln Leu Val Ala Pro Thr Gln Tyr Arg Ile Ser Leu
20 25 30
Gln Phe Asp Phe Phe Glu Thr Glu Gly Asn Asp Val Cys Lys Tyr Asp
35 40 45
Phe Val Glu Val Arg Ser Gly Leu Thr Ala Asp Ser Lys Leu His Gly
50 55 60
Lys Phe Cys Gly Ser Glu Lys Pro Glu Val Ile Thr Ser Gln Tyr Asn
65 70 75 80
Asn Met Arg Val Glu Phe Lys Ser Asp Asn Thr Val Ser Lys Lys Gly
85 90 95
Phe Lys Ala His Phe
100

<210> 7
<211> 102
<212> PRT
<213> Mouse

<400> 7
Gly Thr Ile Thr Ser Pro Asn Trp Pro Asp Lys Tyr Pro Ser Lys Lys
1 5 10 15

Thr Phe Val Glu Met Asp Ile Glu Ser Gln Pro Glu Cys Ala Tyr Asp
 35 40 45

His Leu Glu Val Phe Asp Gly Arg Asp Ala Lys Ala Pro Val Leu Gly
50 55 60

Arg Phe Cys Gly Ser Lys Lys Pro Glu Pro Val Leu Ala Thr Gly Asn
65 70 75 80

Arg Met Phe Leu Arg Phe Tyr Ser Asp Asn Ser Val Gln Arg Lys Gly
85 90 95

Phe Gln Ala Ser His Ser
100

<210> 8
<211> 95
<212> PRT
<213> Mouse

Asn Asn Tyr Pro Gly Gly Val Asp Cys Glu Trp Val Ile Val Ala Glu
1 5 10 15

Glu Gly Tyr Gly Val Glu Leu Val Phe Gln Thr Phe Glu Val Glu Glu
 20 25 30

Glu Thr Asp Cys Gly Tyr Asp Tyr Ile Glu Leu Phe Asp Gly Tyr Asp
35 40 45

Ser Thr Ala Pro Arg Leu Gly Arg Tyr Cys Gly Ser Gly Pro Pro Glu
50 55 60

Glu	Val	Tyr	Ser	Ala	Gly	Asp	Ser	Val	Leu	Val	Lys	Phe	His	Ser	Asp
65					70					75					80

Asp Thr Ile Ser Lys Lys Gly Phe His Leu Arg Tyr Thr Ser Thr
85 90 95

```
<210> 9  
<211> 14  
<212> DNA  
<213> Artificial Sequence
```

<220>
<223> Description of Artificial Sequence: cDNA synthesis
primer

<400> 9
ttttgatcaa gctt

14

<210> 10
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: DNA Adaptor 1

<400> 10
ctaatacgac tcactatagg gctcgagcgg ccgccccggc ag

42

<210> 11
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: DNA Adaptor 2

<400> 11
gtaatacgac tcactatagg gcagcgtggc cgccggccgag

40

<210> 12
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR primer 1

<400> 12
ctaatacgac tcactatagg gc

22

<210> 13
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Nested primer
(NP) 1

<400> 13
tcgagcggcc gcccggcag ga

22

<210> 14
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Nested primer
(NP) 2

<400> 14
agcgtggtcg cggccgagga 20

<210> 15
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: RT-PCR primer

<400> 15
tgccgtatgt cactgtctct aggt 24

<210> 16
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: RT-PCR primer

<400> 16
gaaatcatgg gtatttcatg tgct 24

<210> 17
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: RT-PCR primer

<400> 17
ttgaattcca agcaaaccac ctcaga 26

<210> 18
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: RT-PCR primer

<400> 18
aagctcgagt cagacggttc aatagagt 28

<210> 19
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: BPC1.HINDIII
primer

<400> 19
gtgtaagctt ccaccaagaa aggaacagaa 30

<210> 20
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: BPC1.BAMHI
primer

<400> 20
cacaggatcc cttaccaggt gtgaaattg 29